

**Motion Control of a Transporter**

**Abstract**

5 A transporter for transporting a subject over a surface that may be irregular. The transporter includes a support platform for supporting a load, the loaded support platform defining fore-aft and lateral planes and characterized by a load distribution. A plurality of ground contacting elements are coupled to the support platform. At least one of the plurality of ground contacting elements is driven by a motorized drive arrangement. A sensor module generates a signal indicative of the load distribution of the loaded support  
10 platform. Based at least on the load distribution, a controller commands the motorized drive arrangement.